In re Appln. of Charles LOVE
Application No. ~~09/793,597~~ 09/763,597

CLAIM AMENDMENTS

1. (Currently Amended) A method of forming a porous medium comprising:

applying pressure to a first portion of a medium precursor including inorganic particles;

separately applying pressure to a second portion of the medium precursor, wherein the first portion and the second portion of the medium precursor are pressed along a common axis; and

sinter bonding the inorganic particles together to form a porous medium having a porosity of about 50% or more.

Claims 2-13 (Cancelled)

14. (Previously Presented) The method of claim 1 further comprising depositing the medium precursor as a slurry into a mold cavity, wherein applying pressure to a first portion of the medium precursor includes pressing a first die against a first portion of the slurry in the mold cavity, and wherein separately applying pressure to a second portion of the medium precursor includes pressing a second die against a second portion of the slurry in the mold cavity, the first and second dies respectively imparting predetermined characteristics to respective portions of the porous medium.

15. (Previously Presented) The method of claim 14 wherein the first and second dies press the first and second portions at the same compression ratio.

16. (Previously Presented) The method of claim 14 wherein the first and second dies press the first and second portions to substantially the same particle density.

17. (New) The method of claim 1 wherein pressure is applied to the second portion of the medium precursor during the application of pressure to the first portion of the medium precursor.

18. (New) The method of claim 17 further comprising terminating the application of pressure to the first and second portions of the medium precursor at the same time.

19. (New) The method of claim 1 further comprising terminating the application of pressure to the first and second portions of the medium precursor at the same time.

20. (New) The method of claim 1 further comprising depositing the medium precursor in a mold cavity before applying pressure to the first and second portions of the medium precursor, wherein the medium precursor remains in the mold cavity until after the application of pressure to the first and second portions of the medium precursor.

21. (New) A method of forming a porous medium comprising:

depositing a medium precursor including inorganic particles into a mold cavity;

moving a first die against a first portion of the medium precursor in the mold cavity and moving a second die against a second portion of the medium precursor in the mold cavity including moving the first and second dies along a common axis; and

sinter bonding the inorganic particles together to form a porous medium having a porosity of about 50% or more.

22. (New) The method of claim 21 wherein the first and second dies move along the common axis in the same direction.

23. (New) The method of claim 21 wherein the first and second dies move along the common axis in opposite directions.

24. (New) The method of claim 21 wherein the second die moves during movement of the first die.

25. (New) The method of claim 21 wherein the second die moves after movement of the first die.

26. (New) The method of claim 21 wherein the first and second dies stop moving at the same time.

27. (New) The method of claim 21 wherein the medium precursor remains in the mold cavity until after the first and second dies have moved axially.

28. (New) A method of forming a porous medium comprising:

depositing a medium precursor including inorganic particles into a mold cavity;

displacing a first die and displacing a second die along a common axis against first and second portions, respectively, of the medium precursor in the mold cavity;

terminating the axial displacement of the first and second dies, wherein the medium precursor remains in the mold cavity until after the termination of the axial displacement of the first and second dies; and

sinter bonding the inorganic particles together to form a porous medium having a porosity of about 50% or more.

29. (New) The method of claim 28 wherein displacing the first and second dies includes axially displacing the first and second dies in the same direction or in opposite directions.

30. (New) The method of claim 29 wherein terminating the axial displacement of the first and second dies includes terminating the axial displacement of the first and second dies at the same time.

31. (New) The method of claim 29 wherein displacing the first and second dies includes moving the second die while the first die is moving.